

ABSTRACT OF THE DISCLOSURE

A system and method for cooling an entirely or partially immersed mechanical or other type of transducer array is disclosed. Motion/flow of the immersion fluid is induced either by motion of the mechanical transducer itself, where the transducer is of the mechanically movable type, or by a separate motion-inducing mechanism located in or coupled with the fluid-filled, or partially filled, array housing. The resultant fluid flow/motion increases, i.e. more efficiently utilizes, the thermal carrying capacity of the immersion fluid by more uniformly distributing the thermal energy convected from the transducer array throughout the fluid volume. This results in an improved ability to cool the transducer array. The disclosed cooling system and method may be used in such a way so as to not substantially inhibit operation of the transducer array.